

CLAIMS

1. A manufacturing method of a barrier-forming film comprising the steps of providing a vapor-deposited inorganic oxides film on a side of a substrate film, and applying an annealing treatment to the substrate film having said vapor-deposited inorganic film.

2. A manufacturing method of a barrier-forming film comprising the steps of providing a vapor-deposited inorganic oxides film on a side of a substrate film, and applying an annealing treatment to the substrate film having said vapor-deposited inorganic film, to cause thermal shrinkage of the substrate film composing the substrate film having the vapor-deposited inorganic oxide film, and to increase density of the vapor-deposited inorganic oxide film.

3. A manufacturing method of a barrier-forming film according to any one of claims 1 and 2, wherein said vapor-deposited inorganic oxide film comprises a vapor-deposited silicon oxide film or a vapor-deposited aluminum oxide film.

4. A manufacturing method of a barrier-forming film according to any one of claims 1 to 3, wherein said annealing treatment comprises a heating treatment carried out at a heating treatment temperature of at least room temperature for a heating treatment time of at least 30 minutes.

5. A manufacturing method of a barrier-forming film according to any one of claims 1 to 4, wherein said annealing treatment is carried out at a heating treatment temperature within a range of from room temperature to 200 °C.

6. A manufacturing method of a barrier-forming film according to any one of claims 1 to 5, wherein said annealing treatment is carried out for a heating treatment time within a range of from 30 minutes to five days.

7. A manufacturing method of a barrier-forming film, comprising the steps of providing a vapor-deposited silicon oxide film on one side of a substrate film, and heat-treating the substrate film having said vapor-deposited silicon oxide film at a heat treatment temperature of at least room temperature for a heat treatment time of at least one hour.